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unit receives the determined first $\lambda 1(t)$ and second $\lambda 2(t)$ wavelength values and provides forcorrected wavelength values λ 1'(t) based on a comparison of the determined first $\lambda 1(t)$ and second $\lambda 2(t)$ wavelength values.

In The Claims

Please amend the claims as follows:

1. (Amended) A wavelength-determining unit for determining the wavelengths of a plurality of successive optical signals $\lambda(t)$, comprising:

a wavemeter unit adapted for determining first wavelength values $\lambda 1(t)$ for the optical signals $\lambda(t)$,

an absolute-measuring unit having unambiguous wavelength properties at known absolute wavelength values, and being adapted for determining second wavelength values $\lambda 2(t)$ as such of the known absolute wavelength values covered by the optical signals $\lambda(t)$, and

an evaluation unit adapted for receiving the determined first $\lambda 1(t)$ and second $\lambda 2(t)$ wavelength values and for providing corrected wavelength values $\lambda 1'(t)$ based on a comparison of the determined first $\lambda 1(t)$ and second $\lambda 2(t)$ wavelength values.

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2. (Amended) The wavelength-determining unit of claim 1, wherein the wavemeter unit has a wavelength characteristic known in principle or derived from former measurements, whereby the evaluation unit adjusts the known wavelength characteristic based on the determining second wavelength values $\lambda 2(t)$.

3. (Amended) The wavelength-determining unit of claim 1, wherein the evaluation unit comprises a correlation unit for correlating the determined first wavelength values $\lambda 1(t)$ with the second wavelength values $\lambda 2(t)$.

4. (Amended) The wavelength-determining unit of claim 1, wherein the evaluation unit determines at least one of one or more offset or correction values

for correcting the determining first wavelength values $\lambda 1(t)$ to the corrected wavelength values λ 1'(t).

5. (Amended) The wavelength-determining unit of claim 1, wherein the wavemeter unit comprises an interferometer.

6. (Amended) The wavelength-determining unit of claim 1, wherein the absolute-measuring unit comprises a gas absorption cell.

7. (Amended) A measuring unit for measuring an optical characteristic of a device under test – DUT – , comprising:

a wavelength variable laser source adapted for providing an optical signal $\lambda(t)$ to the DUT, the optical signal $\lambda(t)$ having a wavelength variation over the time;

a wavelength-determining unit adapted for receiving the optical signal $\lambda(t)$ and determining wavelength values $\lambda 1(t)$ thereof over the time, said wavelength determining unit comprising a wavemeter unit adapted for determining first wavelength values $\lambda 1(t)$ for the optical signals $\lambda(t)$, an absolute-measuring unit having unambiguous wavelength properties at known absolute wavelength values, and being adapted for determining second wavelength values $\lambda 2(t)$ as such of the known absolute wavelength values covered by the optical signals $\lambda(t)$, and a first evaluation unit adapted for receiving the determined first $\lambda 1(t)$ and second $\lambda 2(t)$ wavelength values and for providing corrected wavelength values $\lambda 1'(t)$ based on a comparison of the determined first $\lambda 1(t)$ and second $\lambda 2(t)$ wavelength values;

a receiver for receiving a signal response on the optical signal $\lambda(t)$ provided to the DUT; and

a second evaluation unit receiving the signal response and the thereto corresponding determined wavelength values $\lambda 1'(t)$.

8. (Amended) A measuring unit for measuring an optical characteristic of a device under test – DUT – , comprising:

a wavelength variable laser source adapted for providing an optical signal $\lambda(t)$ to the DUT, the optical signal $\lambda(t)$ having a wavelength variation over the time,

a wavelength-determining unit adapted for receiving the optical signal $\lambda(t)$ and determining relative wavelength values $\lambda 1(t)$ and absolute wavelength values $\lambda 2(t)$ thereof over the time,

a receiver for receiving a signal response I(t) on the optical signal $\lambda(t)$ provided to the DUT, and

an evaluation unit receiving the signal response of the receiver and thereto calculating the corresponding wavelength values λ 1'(t) out of the wavelength values $\lambda 1(t)$ and $\lambda 2(t)$ from the wavelength-determining unit resulting in a spectral response $I(\lambda)$ of the DUT.

9. (Amended) A method for determining the wavelengths of a plurality of successive optical signals $\lambda(t)$, comprising:

determining first wavelength values $\lambda 1(t)$ for the optical signals $\lambda(t)$,

using an absolute-measuring unit having unambiguous wavelength properties at known absolute wavelength values for determining second wavelength values $\lambda 2(t)$ as such known absolute wavelength values covered by the optical signals $\lambda(t)$, and

providing corrected wavelength values $\lambda 1'(t)$ based on a comparison of the determined first $\lambda 1(t)$ and second $\lambda 2(t)$ wavelength values.

10. (Amended) A software product, stored on a data carrier, for executing a method for determining the wavelengths of a plurality of successive optical signals $\lambda(t)$, when run on a data processing system such as a computer, said method comprising:

determining first wavelength values $\lambda 1(t)$ for the optical signals $\lambda(t)$,

using an absolute-measuring unit having unambiguous wavelength properties at known absolute wavelength values for determining second wavelength values $\lambda 2(t)$ as such known absolute wavelength values covered by the optical signals $\lambda(t)$, and

providing corrected wavelength values $\lambda 1'(t)$ based on a comparison of the determined first $\lambda 1(t)$ and second $\lambda 2(t)$ wavelength values.